App. No. 10/658492
Office Action Dated September 20, 2004
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Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Claims 2-6 are amended.

Claim 7 is new.

Listing of Claims:

1. (Original) A method of radiation processing of a product package of essentially equal rectangular size in a device having a radiation source, a collimator having a variable aperture, and a turntable, said radiation processing resulting in a point in the product package where the dose is minimal (D_{min} point) and a point in said product package where the dose is maximal (D_{max} point) comprising the steps of:

- determining a first value of the collimator aperture, by increasing said aperture from a small value, where the D_{max} point is located near the centre of the product package, up to a value where the D_{max} point moves near to the centre of a small side of said package's rectangular horizontal cross-section;
- determining a second value of the collimator aperture, by further increasing the collimator aperture up to a point where the D_{min} point moves from a point near the corner of the product package to the centre of said package;
- processing said package with radiation, the collimator aperture being kept at a constant value comprised between said first and said second value, the turntable being rotated at a variable speed.

2. (Currently Amended) The method according to claim 1, ~~characterized in that~~ wherein the collimator aperture is selected as being said second value.

3. (Currently Amended) Apparatus for radiation processing of packages of essentially equal rectangular size, comprising a radiation source, a collimator having a variable aperture, and a turntable, adapted for supporting one of said packages during said radiation processing, ~~characterized in that~~ wherein said apparatus comprises a means for:

- determining a first value of the collimator aperture, by increasing said aperture from a small value, where a D_{max} point is located near the centre of the product package, up to a value

where the D_{max} point moves near to the centre of a small side of said package's rectangular horizontal cross-section; and

- determining a second value of the collimator aperture, by further increasing the collimator aperture up to a point where a D_{min} point moves from a point near the corner of the product package to the centre of said package; and

wherein said collimator is adapted for adjusting its aperture to a value comprised between said first and second value, prior to irradiation of [[a]] the package.

4. (Currently Amended) The apparatus according to claim 3, ~~characterized in that~~ wherein the ratio of collimator aperture over [[the]] a distance d1 from radiation source to front face of collimator is adjustable between 0.54 and 0.73.

5. (Currently Amended) The apparatus according to claim 3, ~~characterized in that~~ wherein the ratio of collimator aperture over [[the]] a distance d2 from radiation source to centre of turntable is adjustable between 0.11 and 0.16.

6. (Currently Amended) ~~Use of a~~ The method according to claim 1, ~~or of an apparatus for radiation processing of packages comprising a radiation source, a collimator having a variable aperture, and a turntable, characterized in that said collimator is adapted for adjusting its aperture prior to irradiation of a package for irradiating~~ wherein said product package[[s]] ~~having~~ has a mean density ~~comprised~~ between 0.4 and 0.8 g/cm^3.

7. (New) The apparatus according to claim 3, wherein product packages having a mean density between 0.4 and 0.8 g/cm^3 are irradiated.